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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,041	11/14/2003	Alan H. Anderson	7707.0019-02	7520

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EXAMINER

DINH, TIEN QUANG

ART UNIT	PAPER NUMBER
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3644

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

✓ **Office Action Summary**

12 ✓  
Application No.

10/712,041

Applicant(s)

ANDERSON ET AL. *P*

Examiner

Tien Dinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 64-67 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 64-67 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/7/04</u> | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kam et al in view of Cappa.

Kam et al discloses a one piece closed shape structure having an outer shell 12 and a frame 18 formed on the interior portion of the outer shell. The outer shell and the frame are co-cured. Kam et al is silent on the core material between the inner and outer skin. However, Cappa discloses that a core 38 between an inner and out skin is well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a core material in the outer shell of Kam et al as taught by Cappa to create a stronger shell.

Please note that Kam et al teaches that using the co-cured procedures are well known. Thus one skilled in the art can use this method to assemble parts together.

Claim 64 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams or Cronkhite et al in view of Kam et al and Cappa.

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Williams or Cronkhite et al discloses a one-piece closed shape structure with an outer shell and frames formed on the interior portion of the outer shell but is silent on the co-cured process and the core material. However, Kam et al teaches that co-cured structures are well known in the art. Cappa discloses that a core 38 between an inner and out skin is well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a core material in the outer shell of Hamamoto et al as taught by Cappa to create a stronger shell.

It would have been obvious to one skilled in the art at the time the invention was made to have used a co-cured process to make the one-piece closed shape structure in Williams or Cronkhite et al's system as taught by Kam et al to create a stronger structure.

Claim 65 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto et al in view of Kam et al and Cappa.

Hamamoto et al discloses a one-piece closed shape structure with an outer shell and frames formed on the interior portion of the outer shell but is silent on the co-cured process and the core material between the inner and outer skin. However, Kam et al teaches that co-cured structures are well known in the art. Cappa discloses that a core 38 between an inner and out skin is well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used a core material in the outer shell of Hamamoto et al as taught by Cappa to create a stronger shell.

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It would have been obvious to one skilled in the art at the time the invention was made to have used a co-cured process to make the one-piece closed shape structure in Hamamoto et al's system as taught by Kam et al to create a stronger structure.

Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto et al as modified by Kam et al and Cappa as applied to claim 65 above, and further in view of Arenas or Cogburn et al.

Hamamoto et al as modified by Kam et al and Cappa discloses all claimed parts except for the integrally formed flange. However, Arenas or Cogburn et al teaches that integrally formed flanges are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used integrally formed flanges in Hamamoto et al's system as modified by Kam et al and Cappa and as taught by Arenas or Cogburn et al to create a stronger system.

Please note that Kam et al teaches that using the co-cured procedures are well known. Thus one skilled in the art can use this method to assemble parts together. One skilled in the art can assemble the elements together by co-curing the flanges with the outer skin, inner skin, frame and core material. Since the co-curing process is used to form integral elements, one skilled in the art can make the parts integral.

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Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamamoto et al as modified by Kam et al, Cappa, and Arenas or Cogburn et al as applied to claim 66 above, and further in view of Ellzey or Carter et al.

Hamamoto et al as modified by Kam et al, Cappa, and Arenas or Cogburn et al discloses all claimed parts except for the wing attachment pocket. However, Ellzey or Carter et al teaches that wing attachment pockets are well known in the art.

It would have been obvious to one skilled in the art at the time the invention was made to have used integrally formed wing attachment pockets in Hamamoto et al's system as modified by Kam et al, Cappa, and Arenas or Cogburn et al and as taught by Ellzey to create a stronger system.

Please note that Kam et al teaches that using the co-cured procedures are well known. Thus one skilled in the art can use this method to assemble parts together. One skilled in the art can assemble the elements together by co-curing the wing attachment pocket with the outer skin, inner skin, frame and core material. Since the co-curing process is used to form integral elements, one skilled in the art can make the parts integral.

### *Response to Arguments*

In response to applicant's arguments that Kam et al does not teach the outer skin, inner skin, frame, and core material being co-cured, the Examiner would point out that Kam et al was used to teach that the co-curing process is a step that one skilled in the art would have taken and understood to create a stronger structure. Taken this into account, one skilled in the art

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would have used the co-curing process in combination with the previously cited prior arts to create a much stronger one-piece closed shape structure. The co-curing procedures are well known as taught by Kam et al to have been used to create a stronger structure.

Note that the examiner has provided the references that were challenged by the applicant concerning claims 66 and 67. In the previous office action, the Examiner has asserted that flanges and wing attachment pockets are well known in this day and age and that one skilled in the art would have used this to create a stronger fuselage system.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

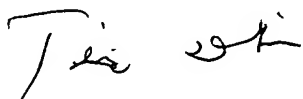
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tien Dinh whose telephone number is 703-308-2798. The examiner can normally be reached on 9-6.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teri Luu can be reached on (703)305-7421. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TD

A handwritten signature in black ink, appearing to read "Teri Luu".